Surface Mount High Efficiency Rectifier

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Built-in strain relief
- Fast switching speed for high efficiency
- Glass passivated chip junction
- High temperature soldering guaranteed: 250℃/10 seconds
- RoHS and REACH Compliance

RoHS
COMPLIANT

Mechanical Data

Case:	JEDEC DO-214AA molded plastic over glass passivated chip
Polarity:	Color band denotes cathode end.
Terminal:	Solder plated, solderable per MIL-STD 750, Method 2026
Mounting Position:	/
Weight:	0.003 ounce, 0.093 gram

Maximum Ratings *(T $_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	US2A	US2B	US2D	US2G	US2J	US2K	US2M	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Max RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I(AV)	Max Average Forward Rectified Current	2.0							A	TA=55℃ (Note 2)
IFSM	Peak Forward Surge Current, 8.3ms single half sine	50							A	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150							℃	

Electrical Characteristics *(T $_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	US2A	US2B	US2D	US2G	US2J	US2K	US2M	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.0			1.3		1.7		V	2.0A
Rθ-JA	Typical Thermal Resistance	75							℃/W	Note 2
Rθ-JL		17								
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5							µA	TA=25℃
		100								TA=125℃
TRR	Maximum reverse recovery time	50				75			nS	Note 1
CJ	Typical Junction capacitance	50				30			pF	Measured at 1.0MHz/4.0V

Note:

1. Test conditions: IF= 0.5A, IR=1.0A, IRR = 0.25A
2. Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.3"x 0.3"(8.0 x 8.0 mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES US2A THRU US2M

FIG.1–TYPICAL FORWARD CURRENT DERATING CURVE

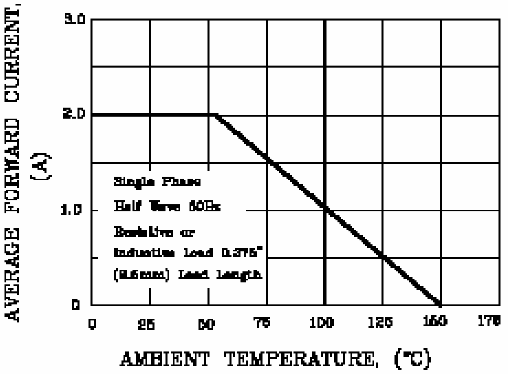


FIG.2–MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

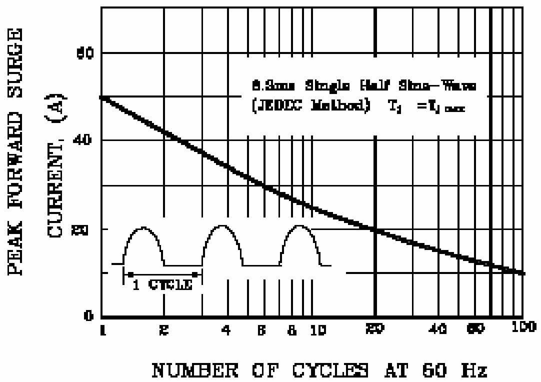


FIG.3–TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

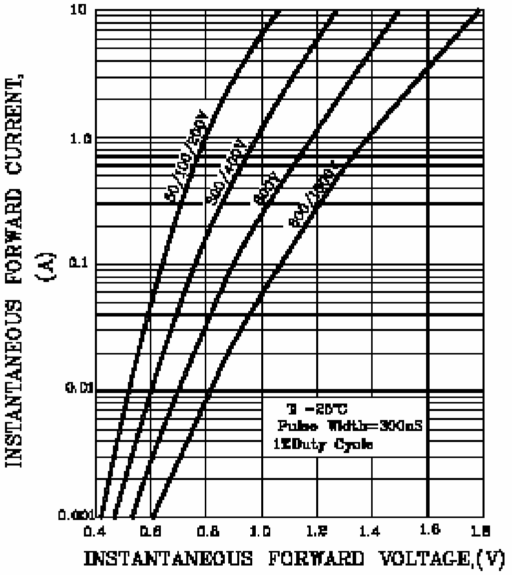


FIG.4–TYPICAL REVERSE CHARACTERISTICS

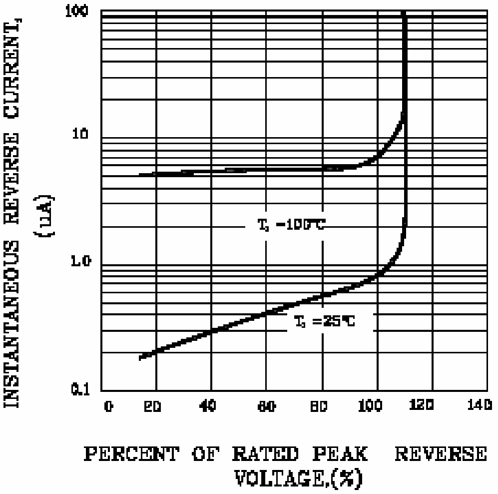


FIG.5–TYPICAL JUNCTION CAPACITANCE

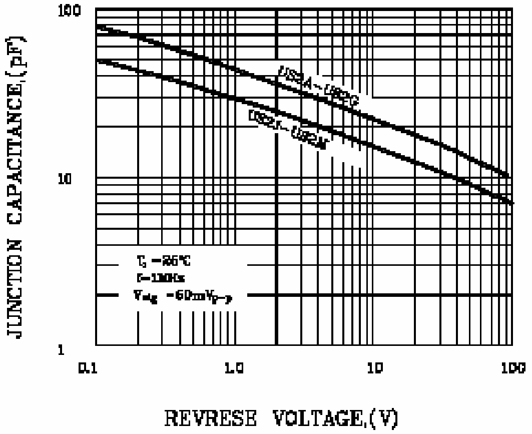
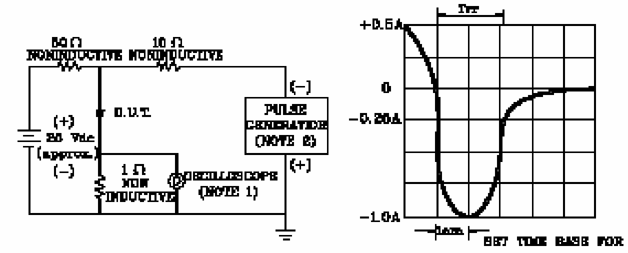


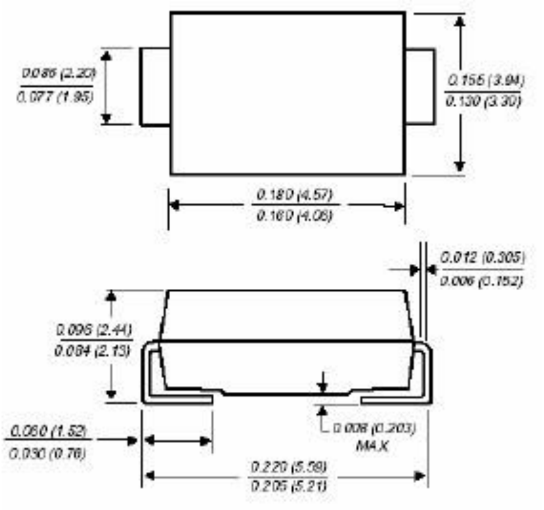
FIG.6–TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm. 22pF

2.Rise time=10ns max. Source Impedance= 50 ohms

Dimensions in inches (mm)



Dimensions in inches and (millimeters)

DO-214AA (SMB)

Contact us:

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